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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,573	08/04/2000	Rainer Siebert	15675.P299x	1726

7590 10/20/2003

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EXAMINER

STARSIK, JOHN S

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 10/20/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,573

Applicant(s)

Rainer Siebert et al.

Examiner

J. STARSIAK

Group Art Unit

1753

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 28 July 2003

☒ This action is FINAL.

- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-13 and 16-40

is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-13 and 16-40

is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “means for applying pressure in a detection cuvette” recited in claims 9 and 31 and the “dispersion means” recited in claims 10 and 32, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The proposed additional drawing was received on 28 July 2003. This drawing is approved.

Specification

The disclosure is objected to because of the following informalities: the brief description of the drawings recites, “Figure 13 and following...”. However since the applicant has added a brief description of new figure 18, this recitation should be changed to “figure 13 to 17...”. .

Appropriate correction is required.

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Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 10, 31, and 32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The only disclosure directed to claims 9 and 31 in the written description of the invention is a single sentence, i.e. "The separating matrix (a gel or other material) is injected into a pump which allows pressure to be applied in the detection cuvette". The written description fails to disclose where the supply of separating matrix is when the filling operation occurs. The written description fails to recite the details of the cuvette which allow interfacing of the cuvette with a pump. The written description of the invention is devoid of the subject matter of claims 10 and 32. In other words, only the claims recite a dispersion means. There is no disclosure of the location of the dispersion means relative to other elements of the invention such as the CCD and the focusing means.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-13 and 16-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, “the refractive index of *the media outside of the capillaries* is equal or superior to that of *the medium inside of the capillaries*”. This recitation does not have proper antecedent basis since neither a “medium outside of the capillaries” nor a “medium inside the capillaries” is recited in the language of the claim proceeding this recitation. Claim 2 recites, “...the light which emerges at the exit of each of the capillaries from that from the walls of the latter and/or from the medium which surrounds them”. This recitation is indefinite for several reasons. Since the proceeding language fails to distinguish between the wall of the capillary and the bore of the capillary, this recitation is incomprehensible. In other words, the “light emerging from the exit end of the capillary” includes the light emerging from the wall. As in claim 1, “the medium which surrounds them” recited in claim 2 does not have proper antecedent basis. Although it appears that “the latter” and “them” appear to refer to the “capillaries”, it would clarify the claim if the term “capillaries” is used. Claim 3 recites; “*further including* said plurality of juxtaposed capillaries forming at least one linear array.”. This recitation further limits the “plurality of juxtaposed capillaries” and does not recite any elements not recited in claim 1, the use of the phrase “further including” is improper. Claim 5 and 27 recite, “*further including* means for producing multiple focusing on the linear array of capillaries.”. It is unclear from this recitation what is being focused. Claim 6 recites, “the beam exiting the side of one capillary of one linear

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array is focused onto the adjacent juxtaposed capillary within the following linear array". This recitation lacks proper antecedent basis and is incomplete. Obviously, there must be two linear arrays of capillaries must be recited in order to provide proper antecedent basis for this recitation. However, claim 3 recites "at least one linear array". The claim is incomplete because there is no recitation of the spatial relationships between linear arrays of capillaries to give meaning to the term "the following linear array". Claim 7 recites, "the space between the capillaries is filled ... with a material ...". This recitation is indefinite for two reasons. First, there is no explicit recitation of spacing between the capillaries in any of the claims (1,3,6) upon which claim 7 depends. Second, "the media outside of the capillaries" recited in claim 1 appears to correspond with "a material" of this claim, i.e. a double recitation. Claims 9 and 31 recite, "further including means for applying pressure in a detection cuvette, which pressure allows the capillaries to be filled with a separating matrix". This recitation is indefinite for several reasons. First, it is unclear if "a detection cell" is being claimed or not since it is recited in the function of the "means for applying". Second, if "a detection cell" is being explicitly claimed, then the claim is indefinite because there are no spatial/structural relationships recited between the "detection cuvette" and the other elements of the invention recited in claim 1 and 23, upon which these claims depend, respectively. Claims 10 and 32 recite "further including dispersion means for spatially separating the various fluorescent wavelengths". This recitation is indefinite for two reasons. First, there are no spatial/structural relationships recited between the "dispersion means" and the elements of the invention recited in claims 1 and 23 respectively, i.e. the recitation is incomplete. Second, there is

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no antecedent basis for “the various fluorescent wavelengths” in claims 1 and 23, respectively. Claims 12, 13, 34, and 35 recite, “the detection means *further* includes detection means of the charge-coupled device (CCD) *type*...”. This recitation is indefinite for two reasons. First, since no structural elements of the detection means are recited in claim 1 and 23, respectively, the use of the term “further” is improper. Second, since there a number of detection devices which are similar to charge-coupled devices, it is unclear if the applicant is attempting to claim any if these similar devices with this recitation. Also, claims 12 and 34 recite “...as well as focusing means”. This recitation is indefinite for two reasons first there is no recitation of the structure of the “focusing means” and there is no function of the “means” (characterizing the “means” as a “focusing means” does not constitute a proper “means plus function”). Second, there is no recitation of structural/spacial relationships between the “focusing means” and either the CCD recited in this claim or the elements recited in claim 1 and 23, respectively. Claim 18 and 29 recite, “the portion of the outside of the wall of the capillaries between the impact of the excitation beam an the end of the capillaries is *turned black*”. While this recitation occurs in the written description, it does not properly described this limitation in view of the exemplary example. Specifically, “gluing a portion of the capillary array to a support with a non-transparent glue” would not reasonably described as turning a portion of the outside of the capillaries black. Alternatively, if one assumes that “gluing a portion of the capillaries to a support with a non-transparent glue” is one way of turning a portion of the capillaries black, then it is impossible to determine the scope of the processes for “turning a portion black”. Claim 19 is indefinite two

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reasons. First, it is a hybrid claim, i.e. recites a manufacturing step in an apparatus claim. Second, there is no explicit recitation of “a cell” or a “means for creating pressure in the cell”. Claims 22 and 40 recite “said means for producing multiple focusing on a linear array of capillaries comprises microlenses. This recitation is complete because no spatial/structural relationships are recite between the “microlenses” and the “linear array of capillaries”. Regarding claim 28 see the rejection of claim 6 which contains the same recitation. Claim 29 recites, “the space between the capillaries...”. There is no antecedent basis for this recitation in claim 23. Claim 29 should include a term “further” since “a material” is not recited in claims 23, 25, or 28 upon which claim 29 depends. Claim 36 recites “the media outside the capillaries” and “the medium inside the capillaries”. Neither of these recitations have antecedent basis in claim 23. Claim 37 should included the term “further” since no support is recited in claim 23. The remaining claims are rejected because they depend on at least one of the above claims.

Response to Arguments

Applicant's arguments with respect to claims 1-13 and 16-40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Starsiak Jr. whose telephone number is (703) 308-1797. The examiner can normally be reached on Monday to Wednesday from 8:00 AM to 3:30 PM and on Thursday and Friday from 8:00 AM to 12:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on (703) 308-3322. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Nam Nguyen', written in a cursive style.

NAM NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

John S. Starsiak Jr.

08 October 2003